Listing of the Claims

1-2. (canceled)

3. (previously presented) The method of claim 35, wherein said information concerning the communication capabilities of the first device comprises one of a type of voice operated recorder (vocoder), a device revision indicator, and a device identifier.

4-6. (canceled)

7. (previously presented) The method of claim 35, wherein at the first device, further comprising compressing the data stream according to a source compression algorithm, wherein said information identifies the source compression algorithm.

8. (previously presented) The method of claim 35, wherein at the first device, said generating further comprises:

compressing the data stream to generate a compressed data stream;

detecting a capability of the first device;

generating a signature based on the detected capability of the source device; and

applying the signature as a watermark to the compressed data stream to generate the data transmission message.

9. (previously presented) The method of claim 8, wherein detecting comprises detecting a capability of the first device comprising at least one of a type of voice operated recorder (vocoder), device revision indicator, and a device identifier.

10. (original) The method of claim 8, wherein the data stream includes multimedia data encoded in a plurality of fields including non-critical fields and critical fields, and wherein said applying the signature comprises masking the non-critical fields of the data stream; applying the signature to the masked fields of the data stream; and outputting a signed data stream having the non-critical fields of the data stream

containing the signature and the critical fields of the data stream containing the multimedia data.

11. (previously presented) The method of claim 35, wherein the data stream includes header information and multimedia content information, and wherein said information concerning the capability of the first device comprises a watermark that is contained in the multimedia content information.

12-17. (canceled)

18. (previously presented) The method of claim 35, wherein at the second device, further comprising: determining a communication capability attribute contained in said information concerning the communication capabilities of the first device, and comparing the communication capability attribute of the first device with the communication capability attribute of the second device.

19. (previously presented) The method of claim 18, wherein at the second device, further comprising determining a communication capability attribute common to both the first device and the second device based on said comparing.

20. (previously presented) The method of claim 19, wherein at the second device, said determining comprises generating a parameter for use in communicating between the first device and the second device based on the determined common communication capability attribute.

21. (currently amended) The method of claim 19, wherein at the second device, further comprising recovering ~~from the received message~~ said data stream based on the parameter.

22-23. (canceled)

24. (previously presented) The communication system of claim 36, wherein said signature generator in the first device generates said signature information

comprising at least one of a type of voice operated recorder (vocoder), device revision indicator, and a device identifier.

25. (previously presented) The communication system of claim 36, wherein said first communication device further comprises a compression unit that compresses the data stream according to a source compression algorithm, wherein said signature information also identifies the source compression algorithm.

26. (previously presented) The communication system of claim 36, wherein said transport processor in the first communication device adds communication protocol information to the signature information.

27. (previously presented) The communication system of claim 36, wherein the combiner in the first communication device comprises a circuit for logically combining the signature information with the data stream.

28-31. (canceled)

32. (previously presented) The communication system of claim 36, wherein said second communication device comprises a multimedia data decompression unit configured based on said signature information identifying said compression algorithm to decompress the multimedia data.

33. (previously presented) The communication system of claim 36, wherein the detector in the second communication device comprises an extraction mask unit configured to logically combine the multimedia data containing the signature information with a data extraction mask and a signature extraction mask, and to output a multimedia data frame and a signature signal containing the signature information concerning at least one communication capability of the first communication device.

34. (canceled)

35. (currently amended) A method of automatically negotiating communication parameters to permit communication between a first device and a second device based on the capabilities of those devices, comprising:

at the first device:

generating information concerning the communication capabilities of the first device;

combining said information with a multimedia data stream after application layer processing of the multimedia data stream but prior to network and transport layer processing to produce a transmit data stream ~~message~~ so as to be transparent to lower level processing of the data stream; and

transmitting the transmit data stream ~~message~~ to the second device;

at the second device:

receiving the ~~message~~ transmit data stream from the first device;

extracting said information from the ~~message~~ transmit data stream to determine the communication capabilities of the first device;

negotiating, between the application layer processing and network and transport layer processing, with the first communication device parameters for communication between the first communication device and second communication device; and

processing further ~~messages~~ data stream frames received from the first device based on the parameters negotiated with the first device.

36. (currently amended) A communication system comprising:

a first communication device that comprises:

a data stream processor that outputs a data stream to be transmitted;

a signature generator that generates signature information concerning at least one communication capability attribute of the first communication device;

a combiner that embeds the signature information within the data stream after application layer processing of the data stream but prior to network and transport layer processing; and

a transport processor that generates a transmit data stream ~~message~~ containing the data stream with the embedded signature information for transmission;

a second communication device that comprises:

a transport processor unit that receives the transmit data stream ~~message~~ from the first communication device;

a detector that detects the signature information embedded in the transmit data stream; and

a capabilities processor that extracts the signature information to determine the at least one communication capability attribute of the first communication device in order to negotiate, between the application layer processing and network and transport layer processing, ~~through subsequent messages transmitted between the first communication device and second communication device~~ communication parameters to be used for subsequent communication between the first and second communication devices.

37. (new) The method of claim 35, wherein said combining comprises substituting a plurality of bits representing said information for the least significant bits of linear prediction compression coefficients associated with audio content contained in said multimedia data stream.

38. (new) The method of claim 35, wherein said combining comprises substituting a plurality of bits representing said information for: a jitter index, the least significant bits of a gain index, the least significant bits of Fourier Magnitudes; or the least significant bits of reflection bits, associated with a compression technique for audio content contained in said multimedia data stream.

39. (new) The method of claim 35, wherein said combining comprises substituting a plurality of bits representing said information for the least significant bits of unrestricted motion vectors and Discrete Cosine Transform (DCT) coefficients associated with motion video content contained in said multimedia data stream.

40. (new) The method of claim 35, wherein said combining comprises substituting a plurality of bits representing said information for the least significant bits

of the quantized Discrete Cosine Transform (DCT) coefficients associated with still images contained in said multimedia data stream.

41. (new) The method of claim 35, wherein said combining comprises logically OR'ing said information with the multimedia data stream at bit positions of the multimedia data stream chosen to have minimal impact on quality of the multimedia data stream at the second device.

42. (new) The method of claim 19, wherein at said second device, said determining comprises determining the highest level of communication capability in common to the first device and the second device for use in communication between the first and second devices.

43. (new) The system of claim 36, wherein said combiner of the first communication device logically OR's said information with the data stream at bit positions of the data stream chosen to have minimal impact on quality of the data stream at the second communication device.

44. (new) The system of claim 36, wherein the capabilities processor of the second communication device determines a highest level of communication capability in common to the first communication and second communication device for use in communication between the first and second devices.